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Periodical Payment Disorder - an update from the PPO Working Party

Emma Potter – Towers Watson – Deputy Chair
Keith Brown – AXA

Presentation to GIRO 2014
24 September 2014

Agenda

- Background
- Latest PPO market experience
- What insurers are doing now
- Looking to the future
 - Other PPO Working Party workstreams

Note

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Background



13 October 2014

periodical payment order *(noun)*

A PPO is a contingent, deferred, whole-life, wage inflation linked, guaranteed, impaired annuity , where the identity of the annuitant and the size of the annual payments are unknown at inception.

periodical payment disorder (verb)

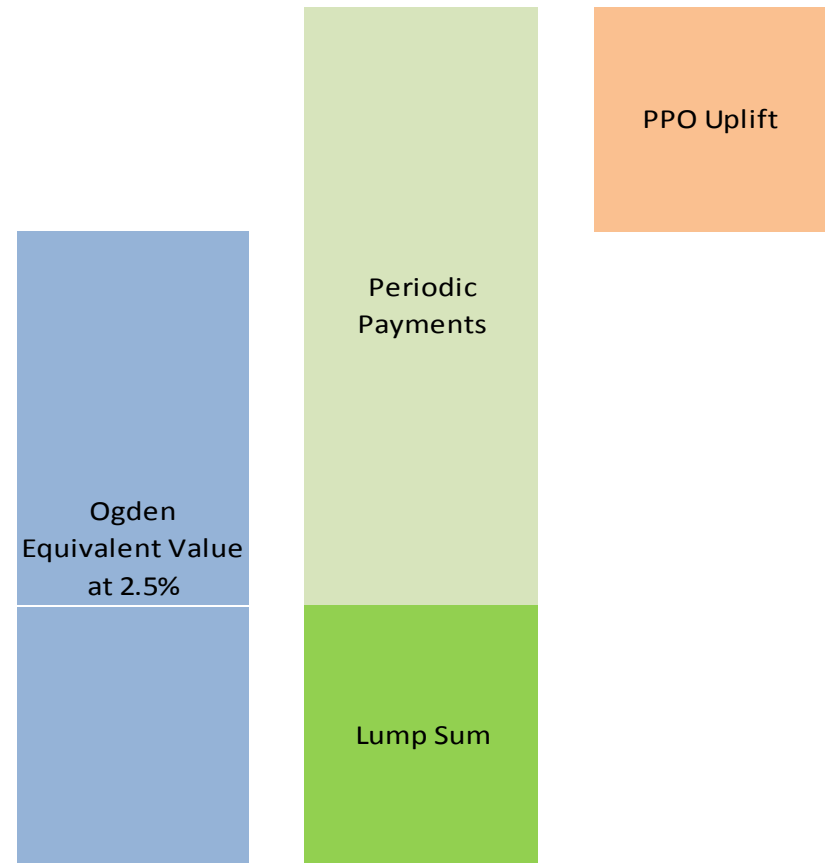
A PPO is a contingent, deferred, whole-life, wage inflation linked, guaranteed, impaired annuity , where the identity of the annuitant and the size of the annual payments are unknown at inception.

disorder

- 1. a state of confusion. (*noun*)
 - synonyms: untidiness, disorderliness, mess, disarray, disorganization, chaos, confusion;
 - antonyms: order
- 2. disrupt the systematic functioning or neat arrangement of. (*verb*)
 - synonyms: dysfunctional, disturbed, unsettled, unbalanced, unstable, unsound, upset;
 - informal: screwed up

Why do PPOs cost more?

- Real discount rate
 - Inflation
 - Investment returns



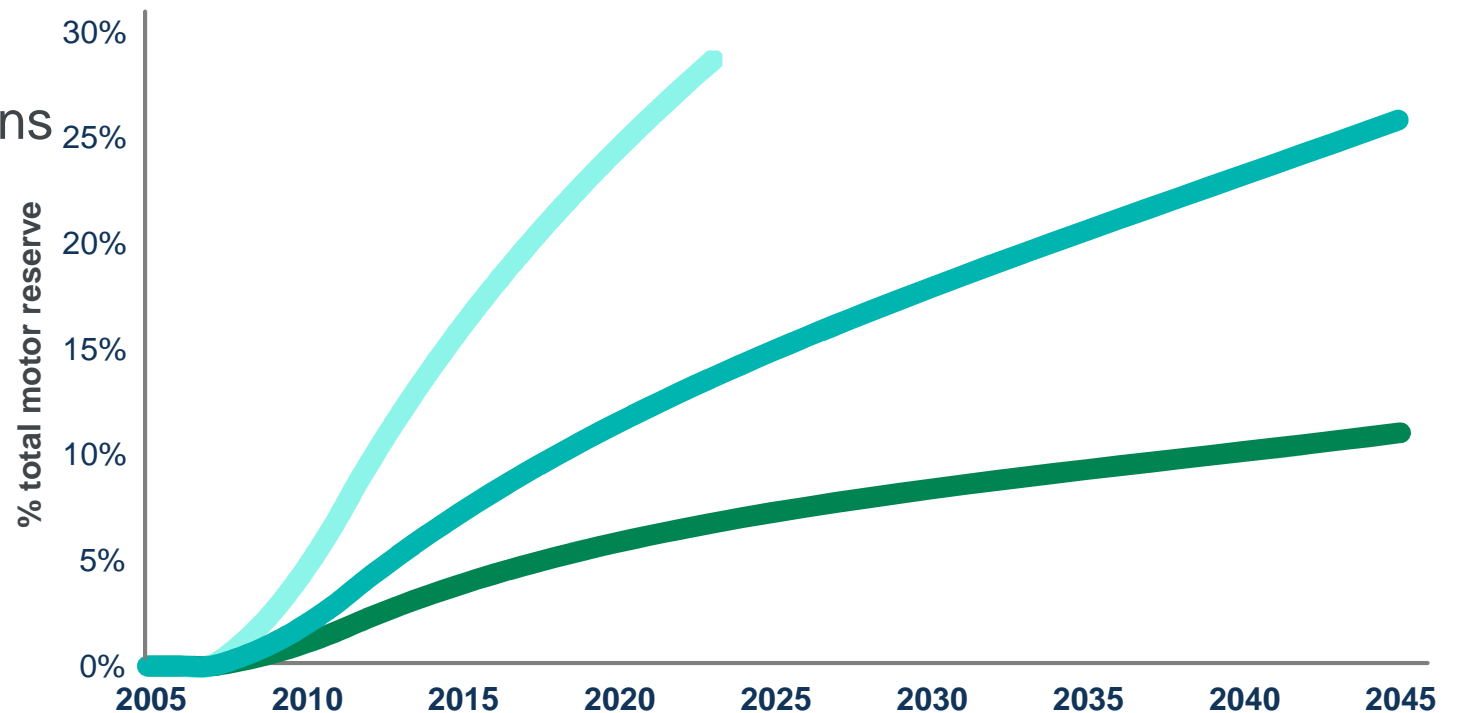
Why do PPOs cost more?

- Real discount rate

- Inflation
- Investment returns

- Uncertainty

- Inflation risk
- Investment risk
- Longevity risk



PPO reserves (settled PPOs only) as a proportion of UK motor market reserves



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Latest PPO market experience

2014 quantitative survey of insurers' experience

24 September 2014

2014 PPO Working Party Survey

- Survey taken as at 31 December 2013
 - 398 Motor PPOs, 45 Liability PPOs
 - Insurers surveyed cover >90% of PRA regulated market
- Can be used for benchmarking; and
- Observing industry trends.

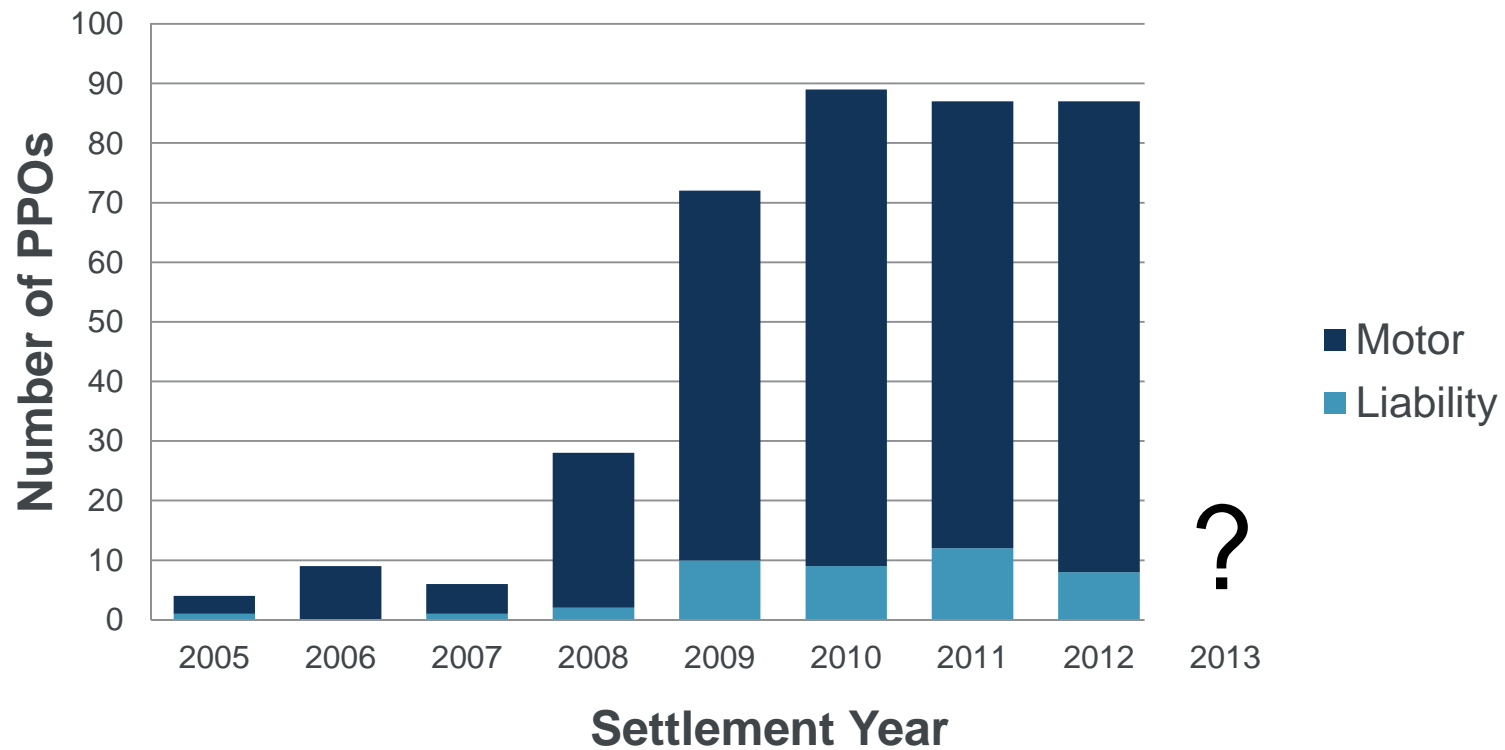


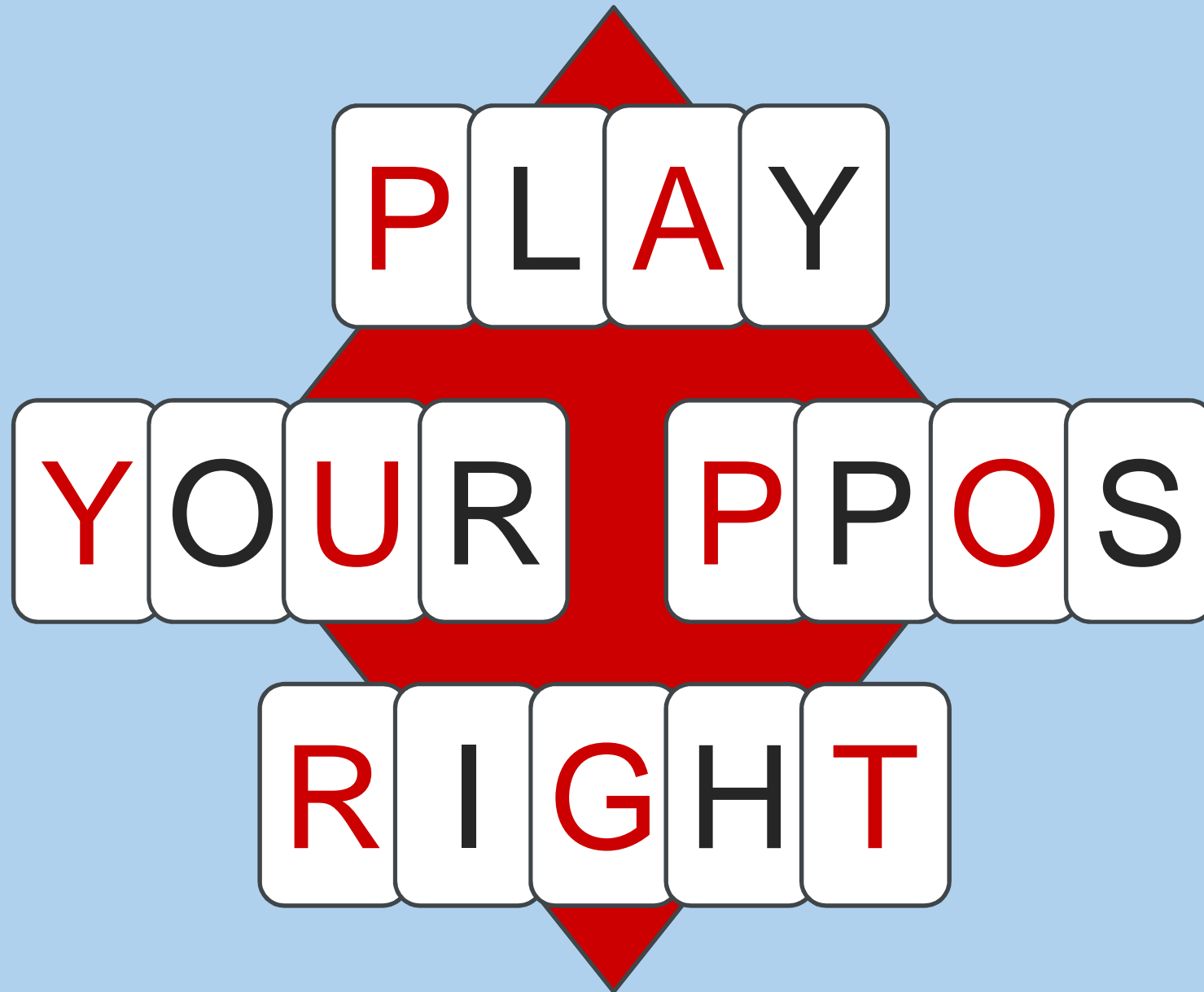
What has happened to PPO propensity?



PPO settlements in 2013

Number of PPOs by Settlement Year







2009

72

2009

2010

89

2010

2011

87

2011

2012

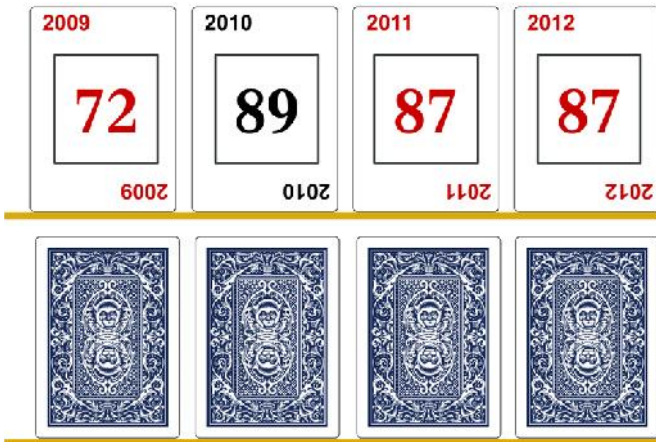
87

2012



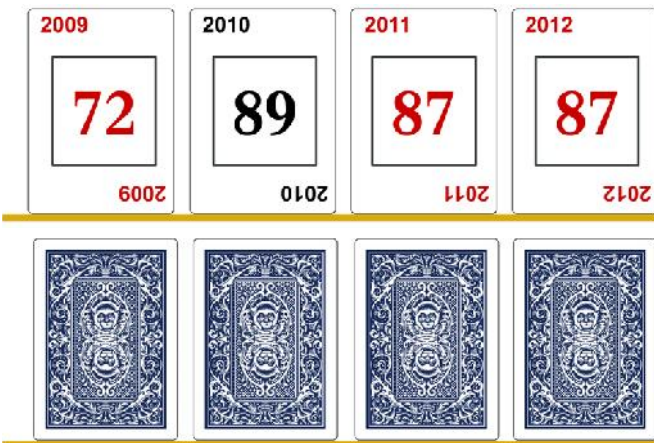
Higher or Lower?

PPO settled numbers in 2013



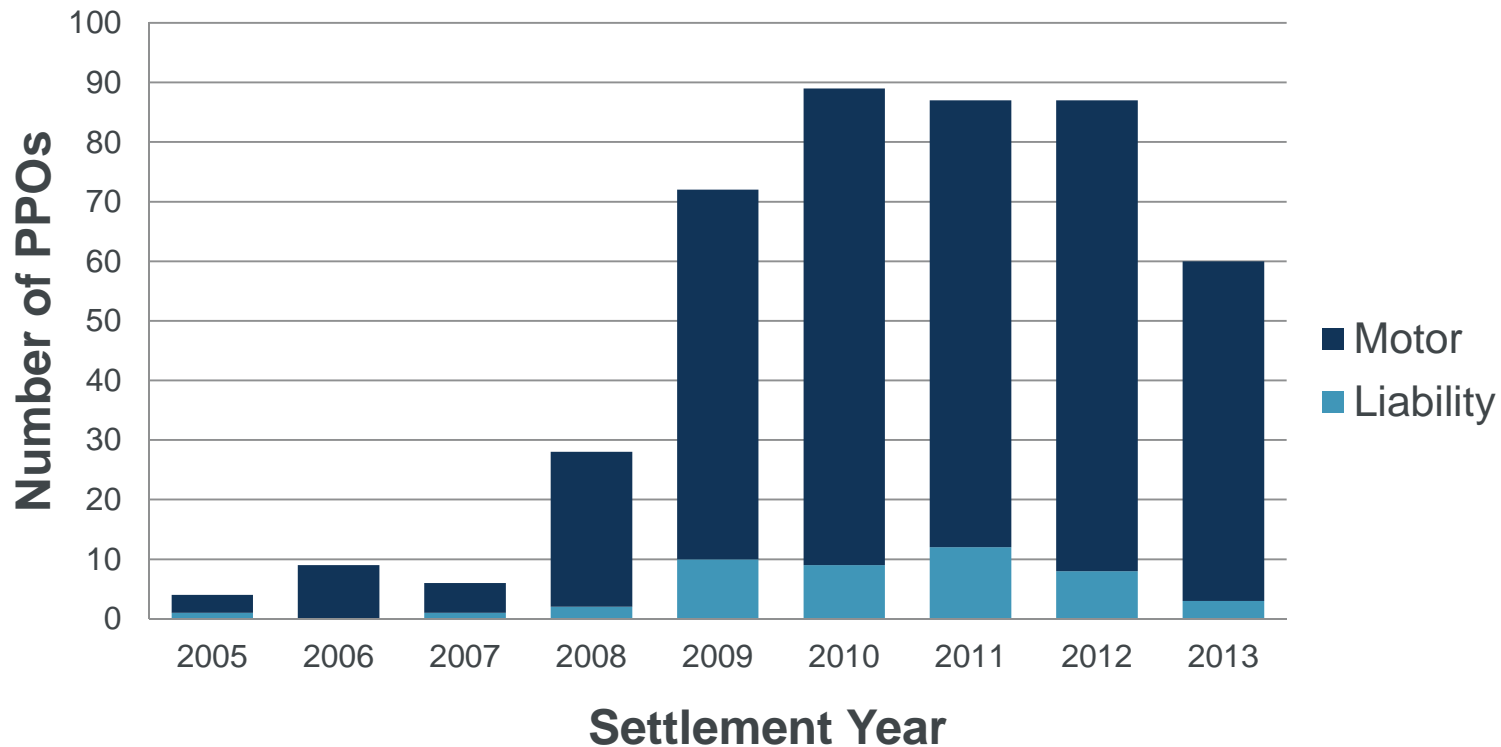


PPO settled numbers in 2013



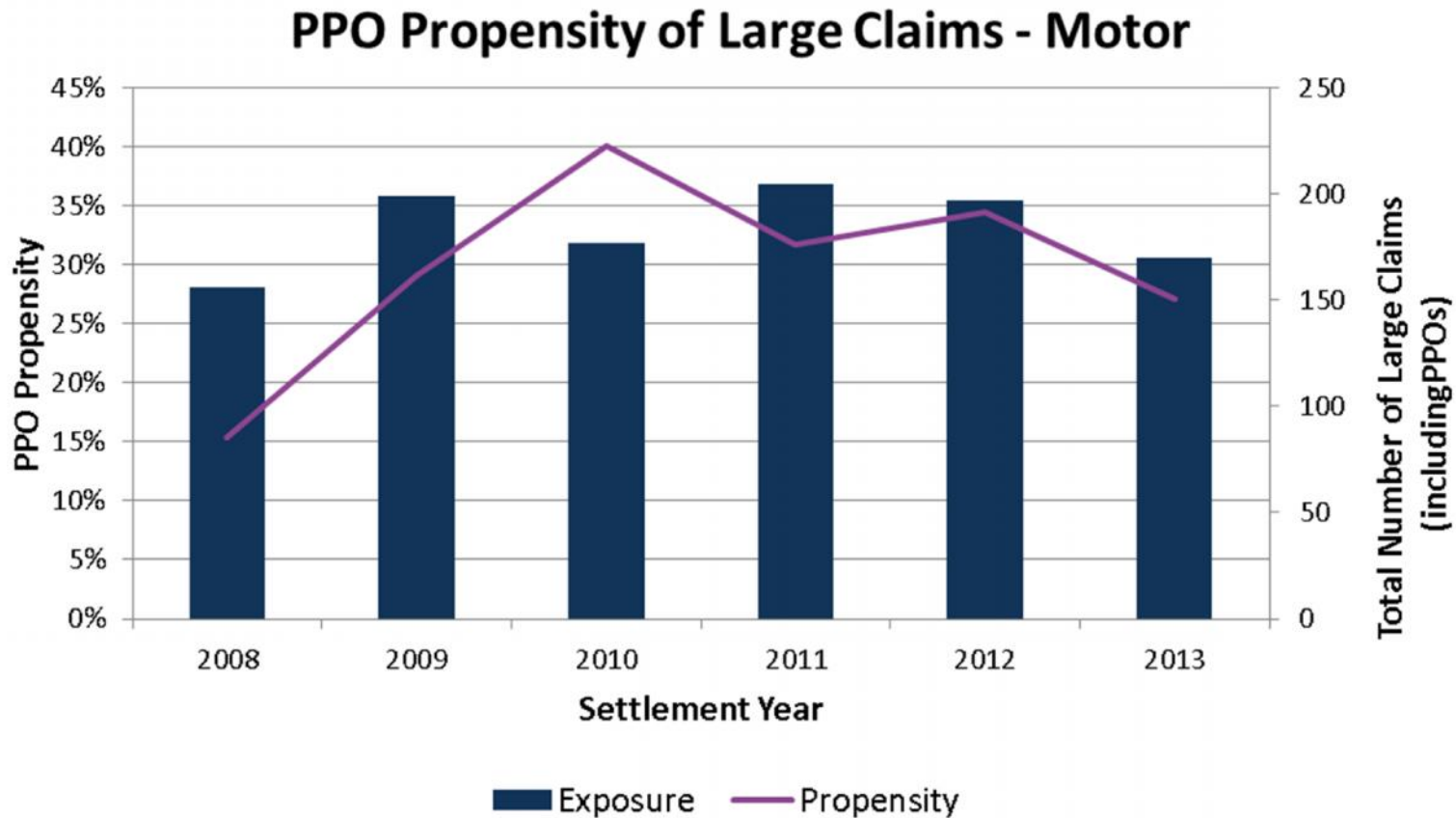
All change in 2013?

Number of PPOs by Settlement Year



- Number of PPO settlements 32% lower in 2013 compared to 2012

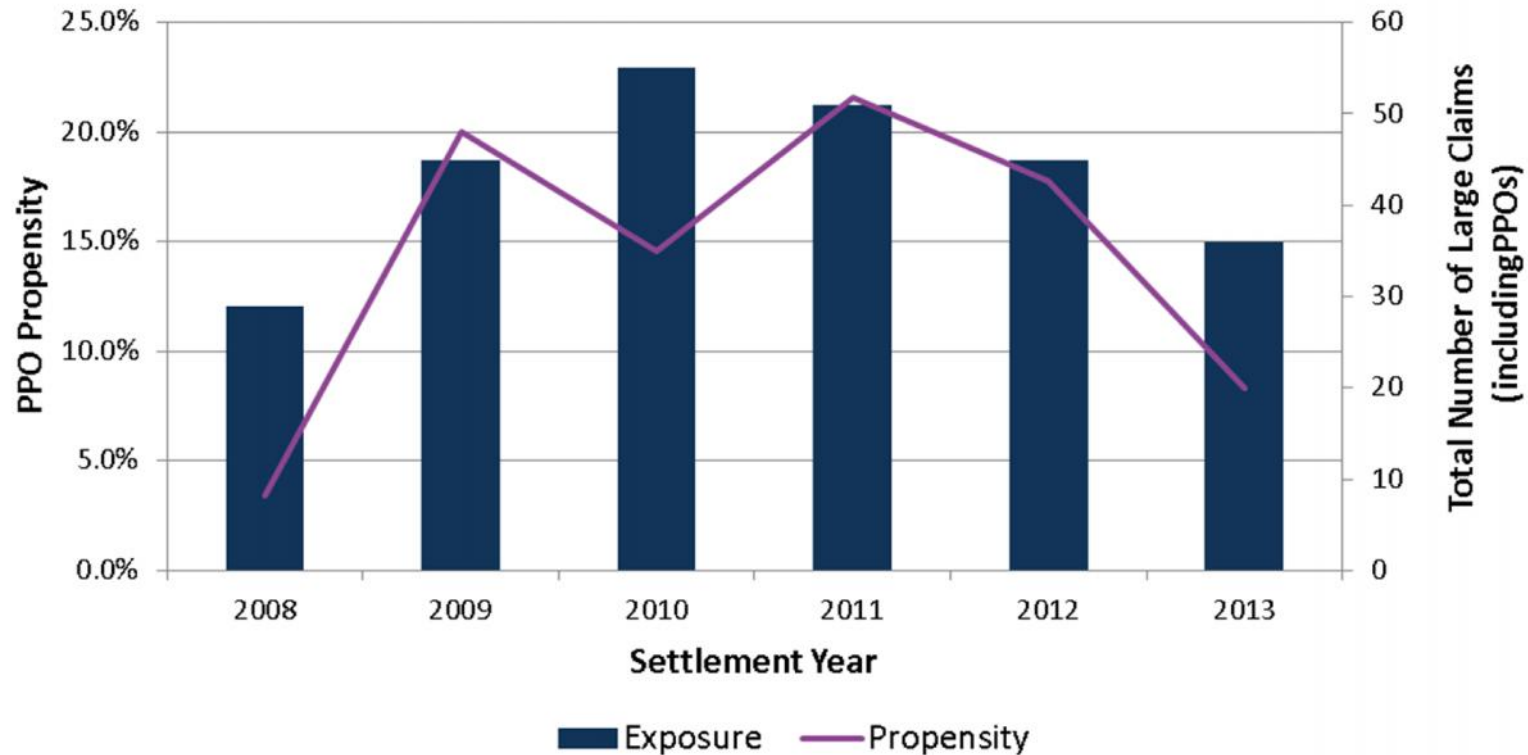
2013 PPO Propensity



- PPO Propensity lower on Motor (27% v 35%)

2013 PPO Propensity

PPO Propensity of Large Claims - Liability



- Propensity also lower on Liability (8% v 18%) but less data

PPO propensity fall - potential explanations

- Data collection issue (late recording of PPOs)
- Volatility not trend
- Driven by particular insurer
- Ogden
- Old stock clearance
- Insurer claims management behaviour
- Claimant appetite

Why has PPO propensity reduced?



Data?

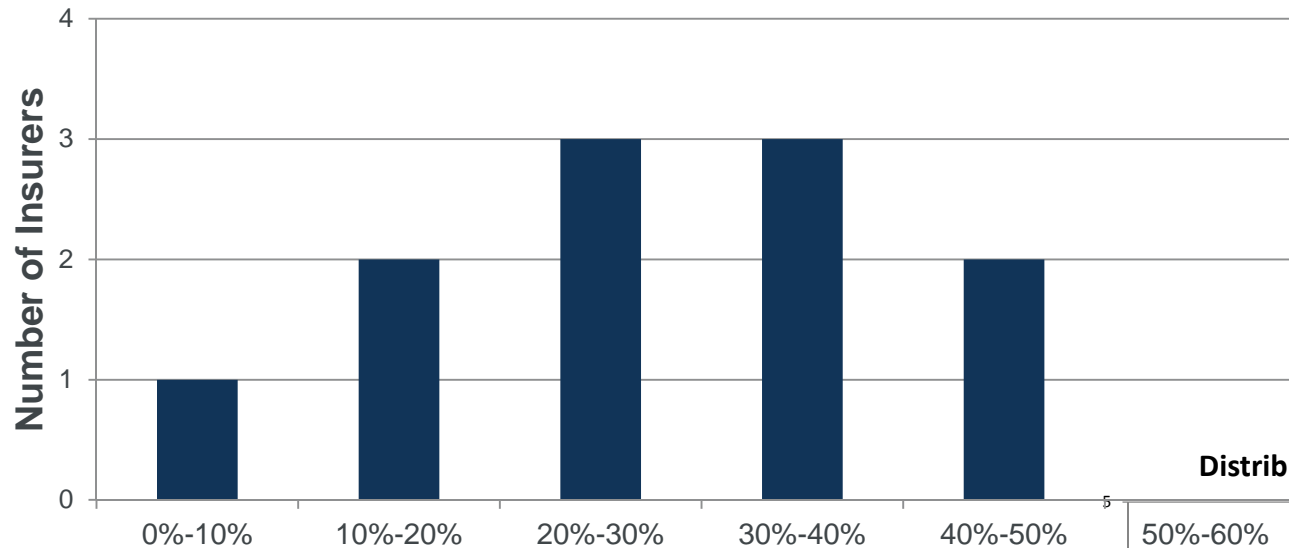
- Data shows no indications of claims missing from most recent settlement year

Proportion of PPOs that settle in each Quarter



Is it everyone?

Distribution of PPO propensity by Insurer - Motor

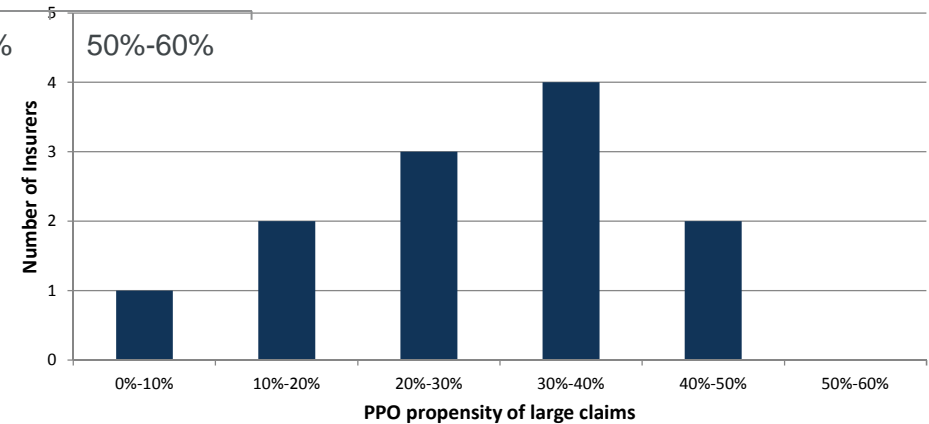


PPO propensity of large claims

- Diverse experience
- Not all seen a reduction in 2013
- Some to more extent than others

GIRO 2013

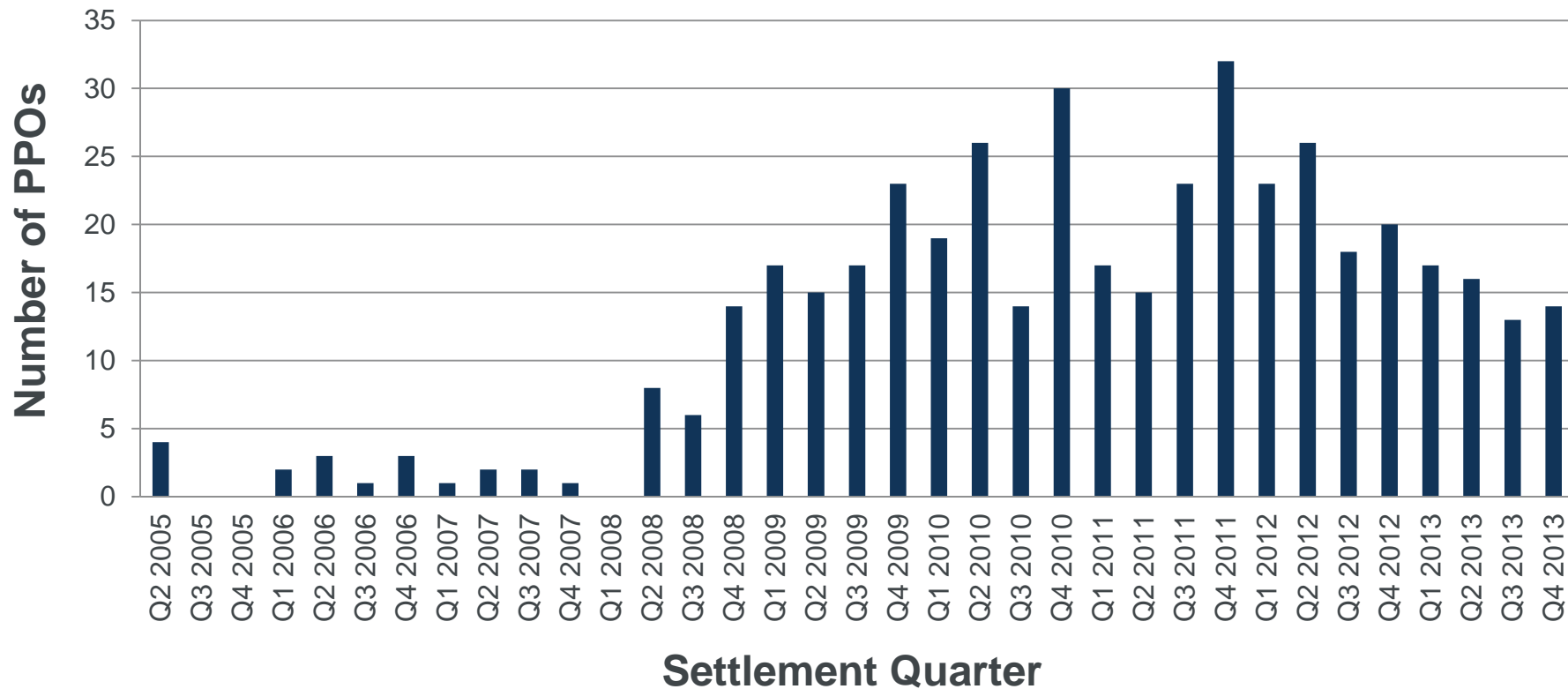
Distribution of PPO propensity by Insurer - Motor



Volatility?

- Data shows volatility in settlement by quarter

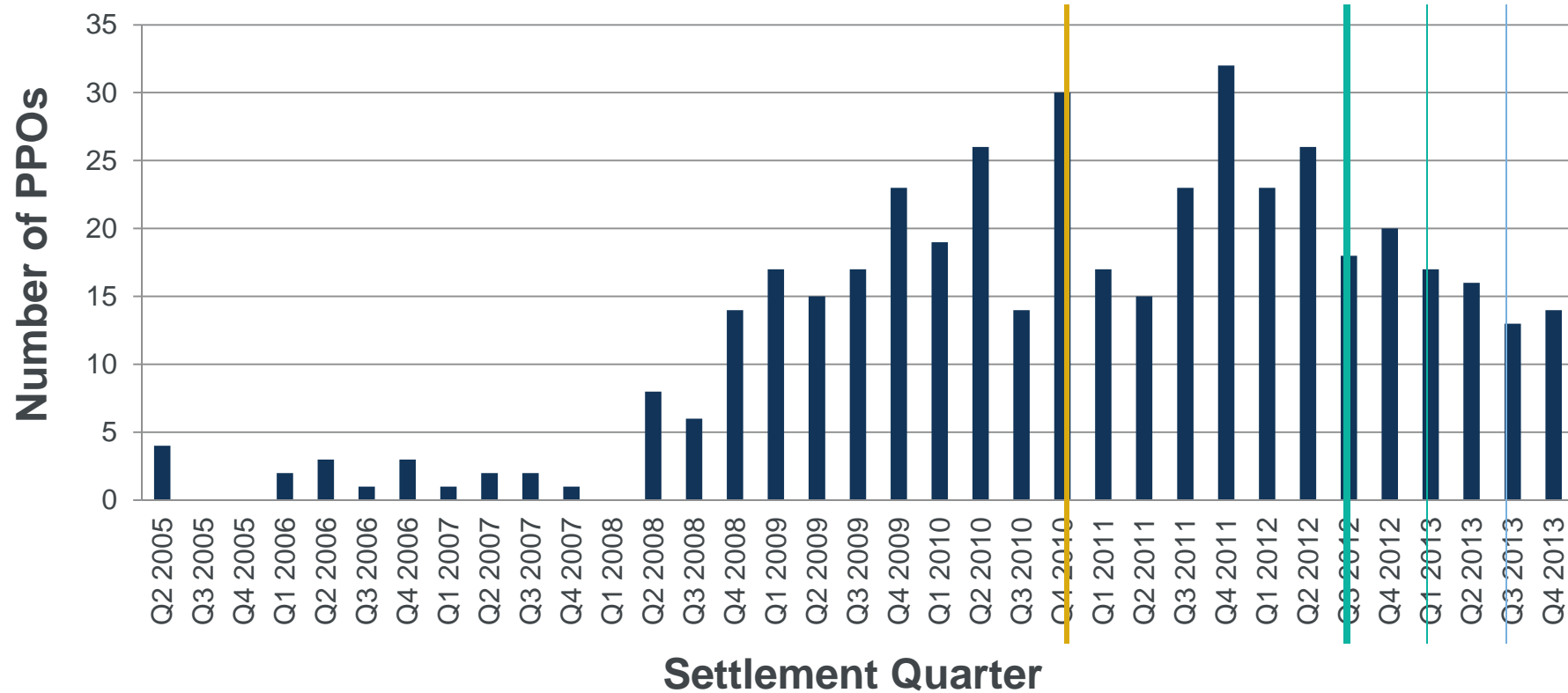
Number of PPOs by Settlement Quarter



Ogden impact?

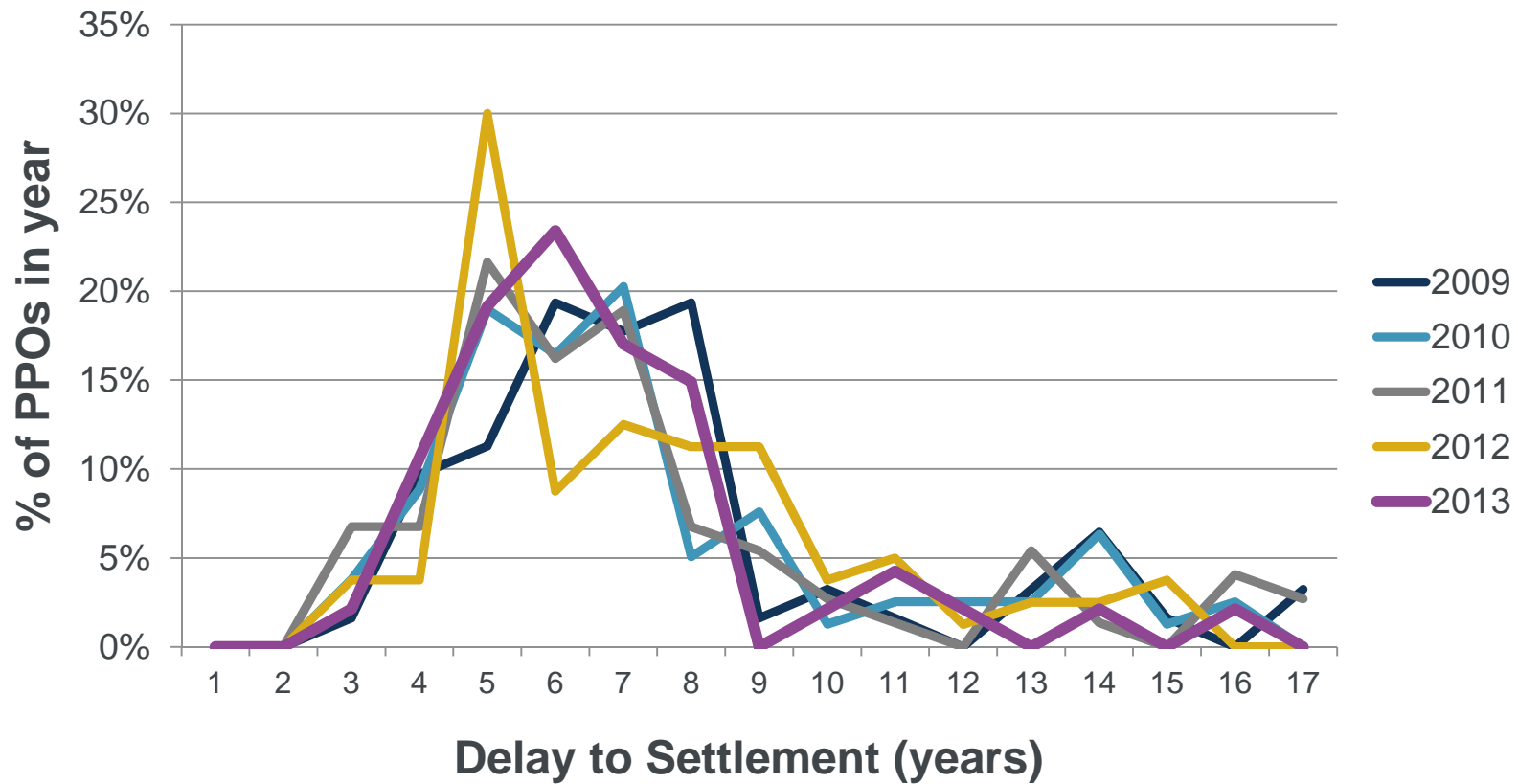
- Has been reduction since Ogden consultations

Number of PPOs by Settlement Quarter



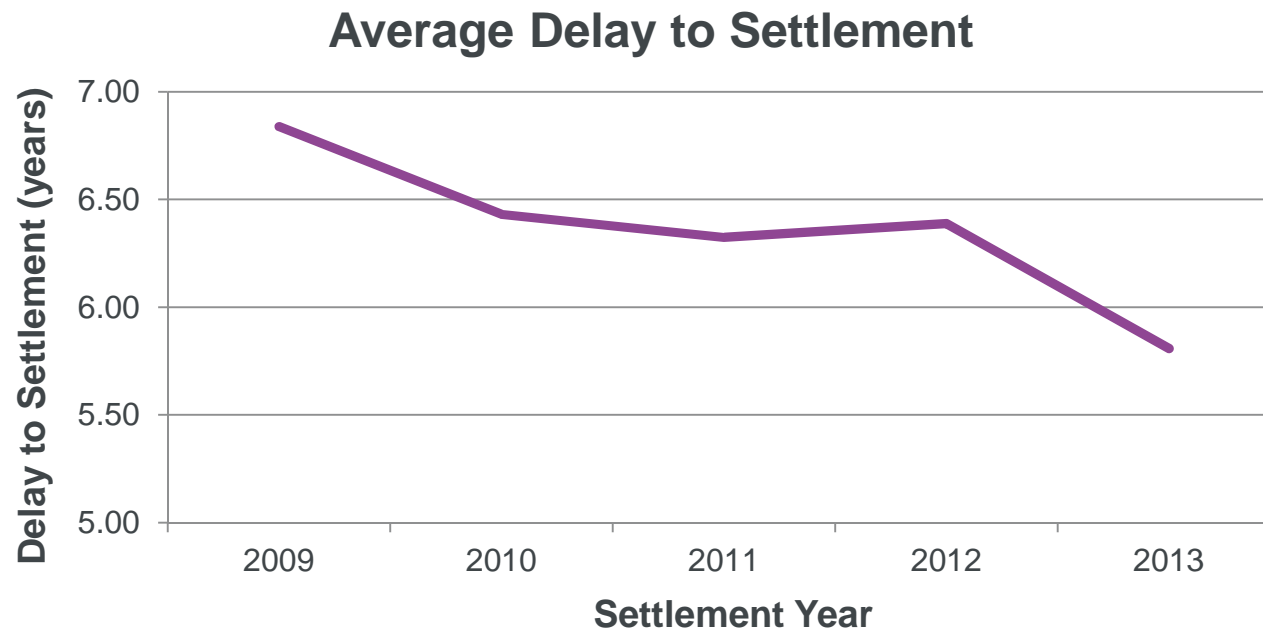
“Old stock” clearance?

Distribution of Delay to Settlement



“Old stock” clearance?

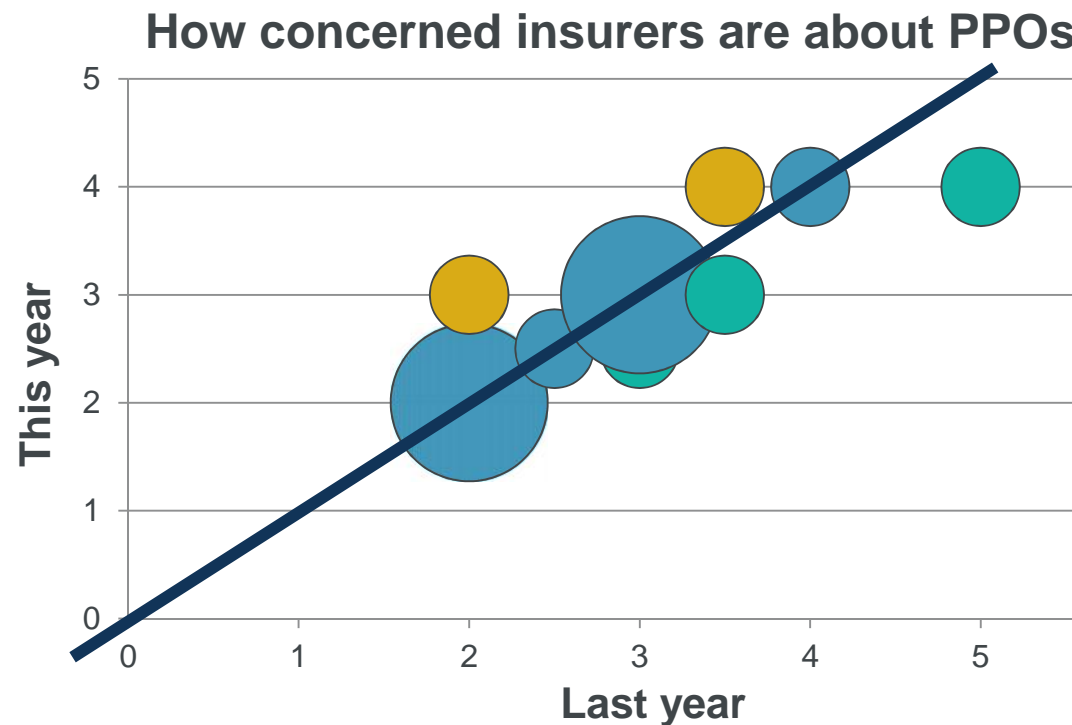
- Average delay to settlement reduced



- Also seeing reduction in delay to settlement on large claims,
 - could be driven by number of cases with potential to settle as a PPO

Insurer appetite?

- Number of PPOs driven by the defendant
 - Fewer that involve agreement of defendant in 2013 compared to previous settlement years, but not significant data to be conclusive
- Concern levels

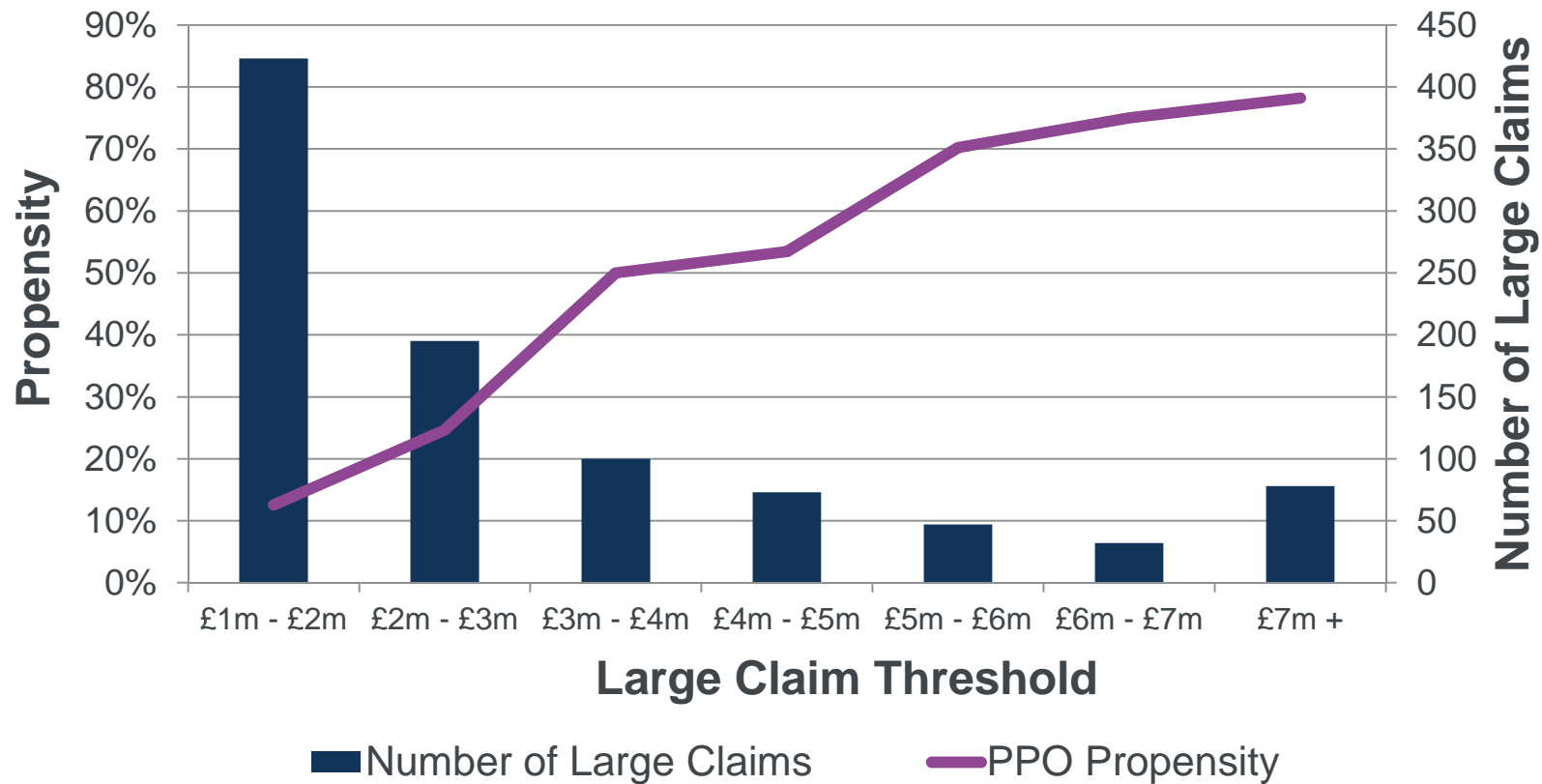


Claimant appetite?

- Number of PPOs driven by the claimant stats
 - No significant decrease in proportion of PPOs driven by claimant

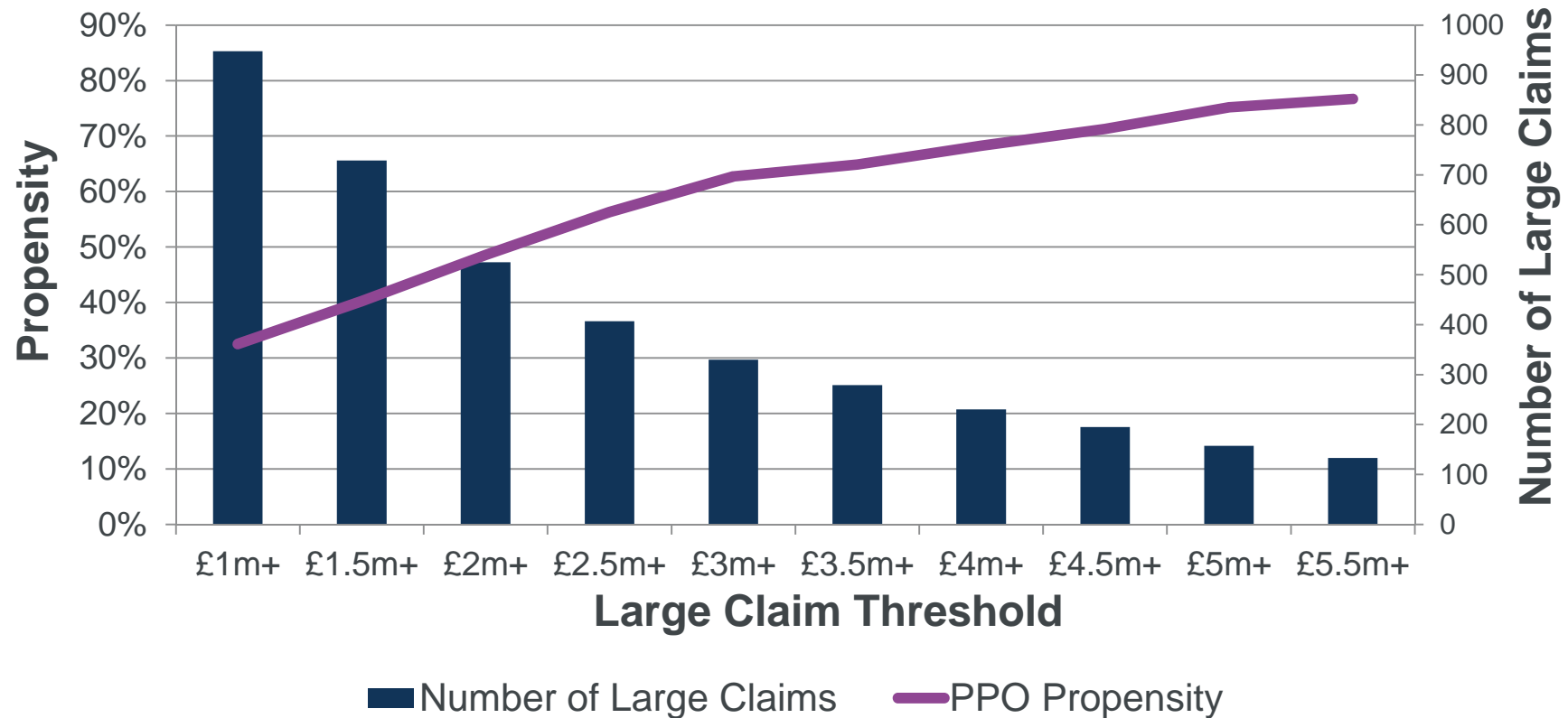
Does it differ by size of claim?

PPO Propensity at different Large Claim Thresholds - Incremental thresholds



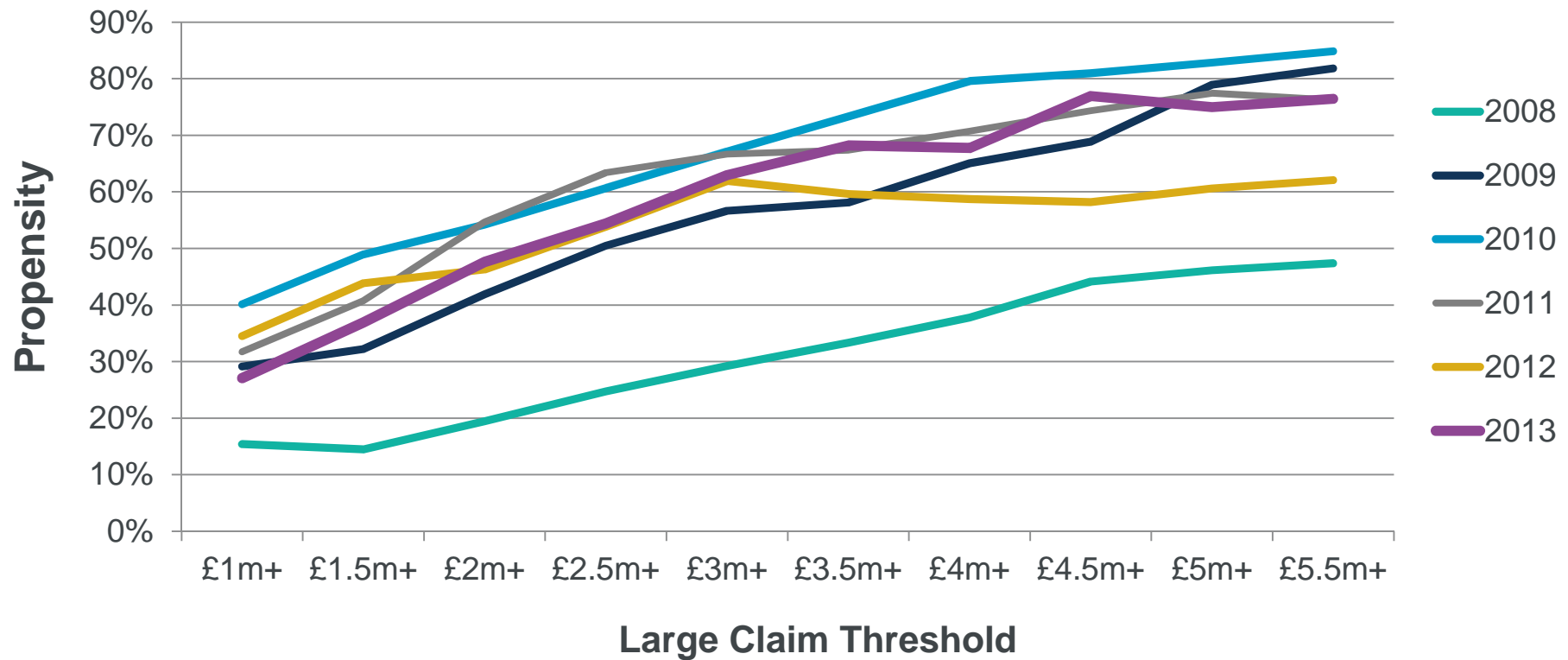
Does it differ by size of claim?

PPO Propensity at different Large Claim Thresholds - Cumulative thresholds



Does it differ by size of claim?

PPO Propensity by Settlement Year - Cumulative thresholds



What has happened to PPO sizes?

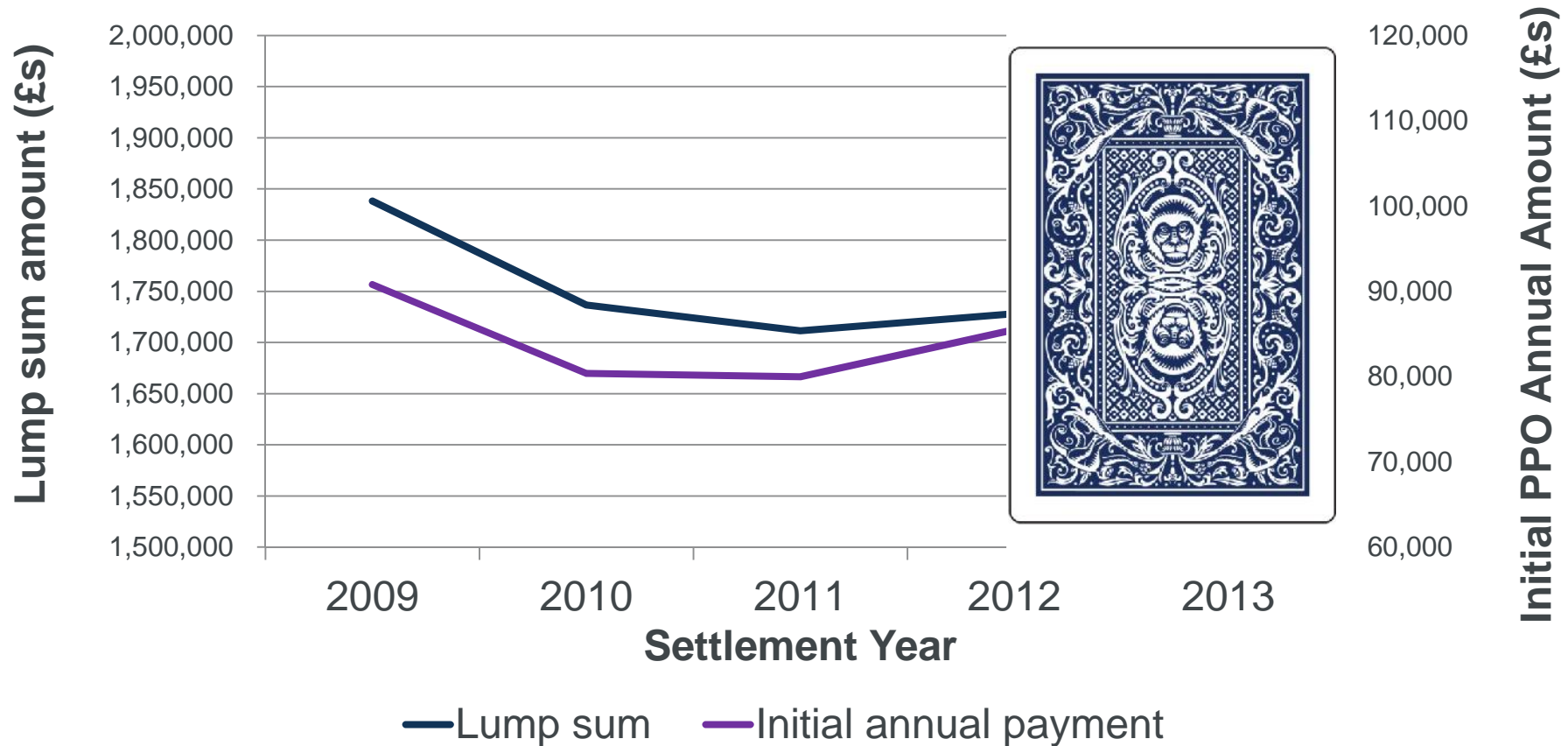


PPO size – Motor

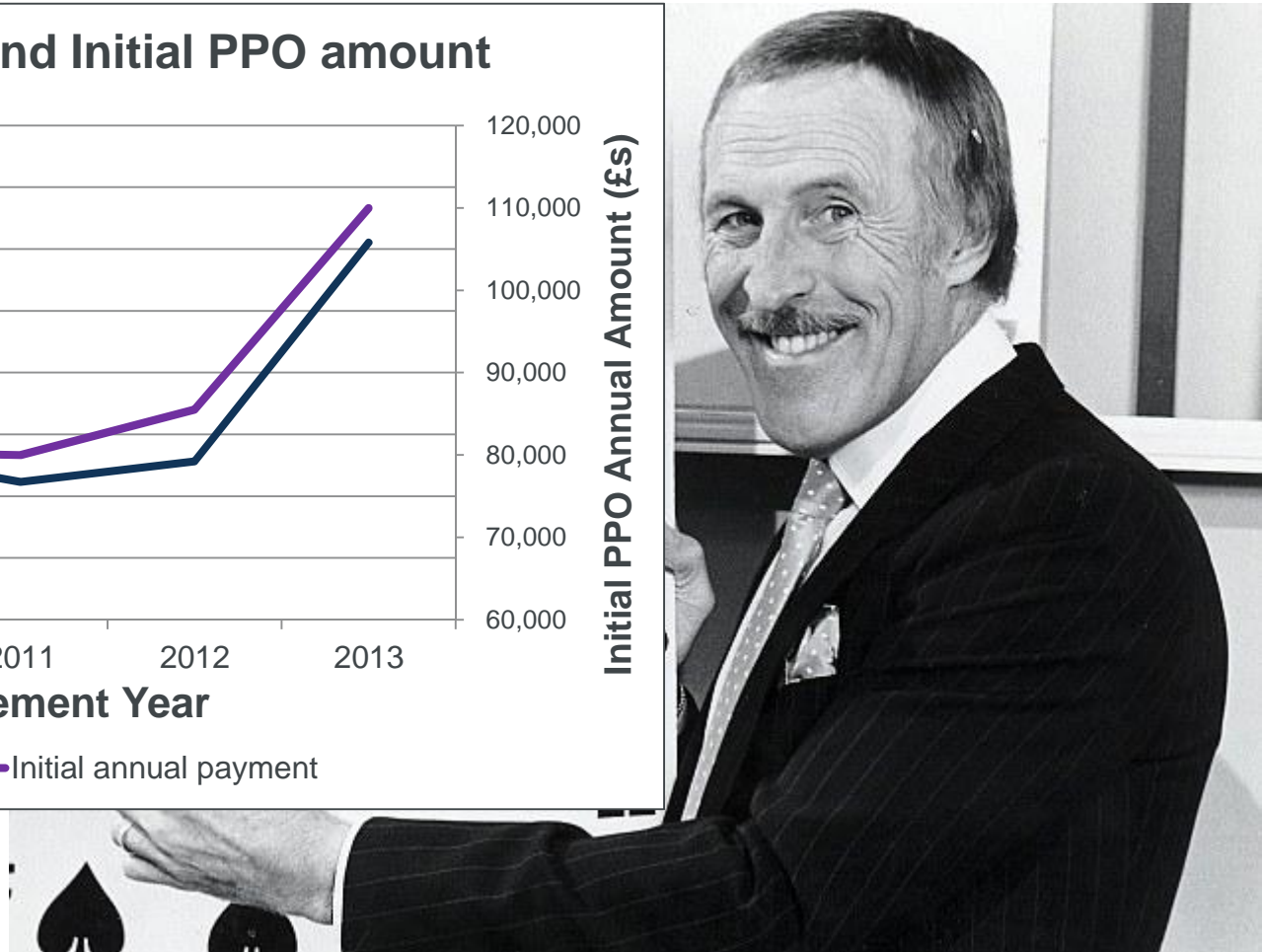
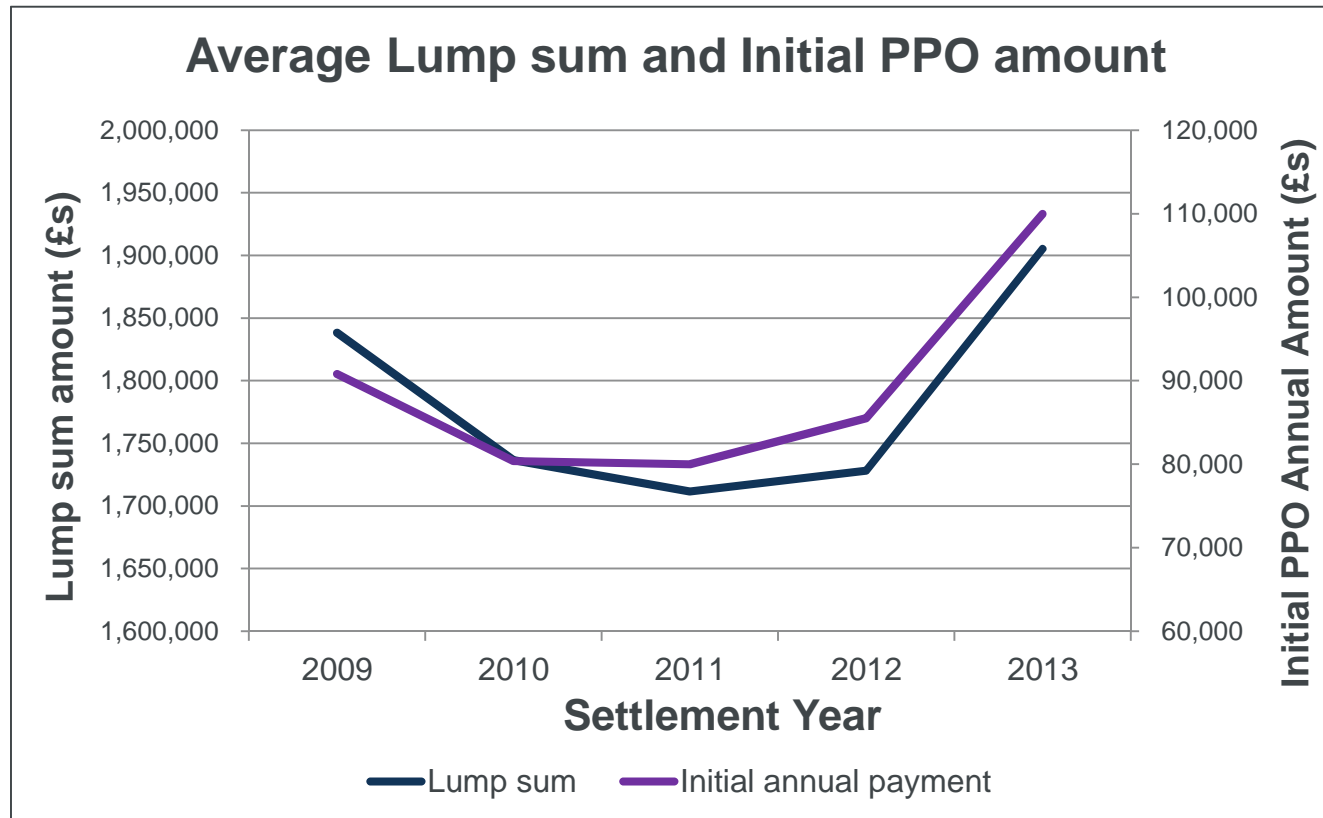
Higher or Lower?



Average Lump sum and Initial PPO amount

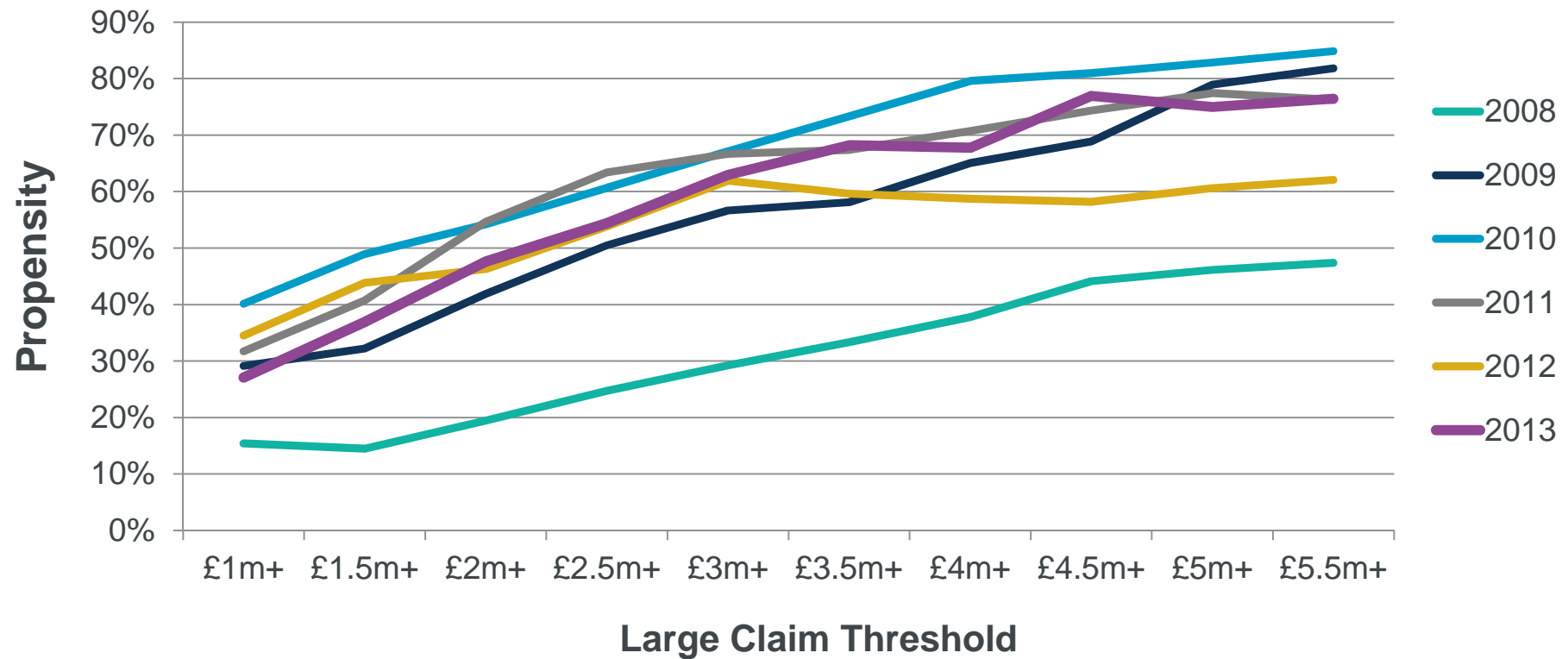


PPO size - Inflationary pressures



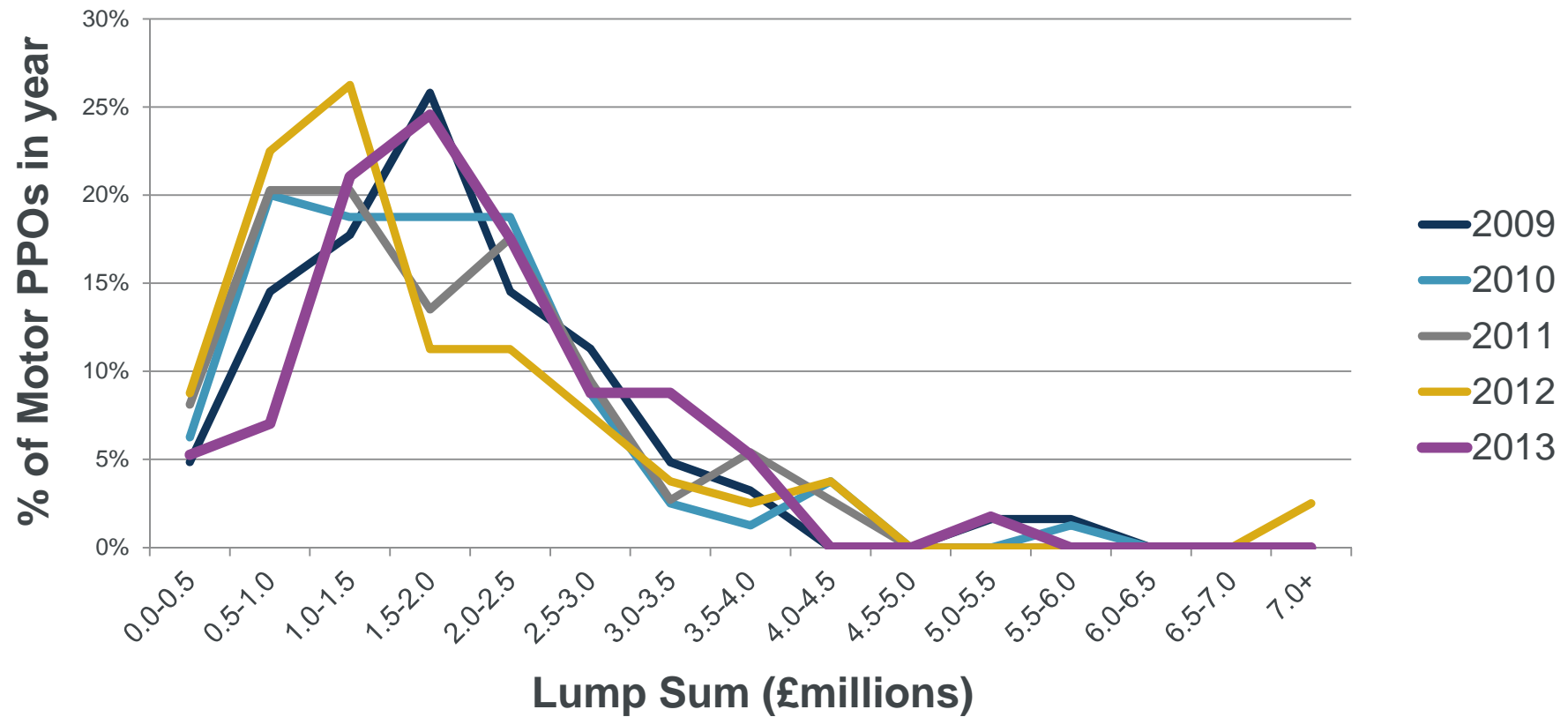
Fewer small PPOs

PPO Propensity by Settlement Year - Cumulative thresholds



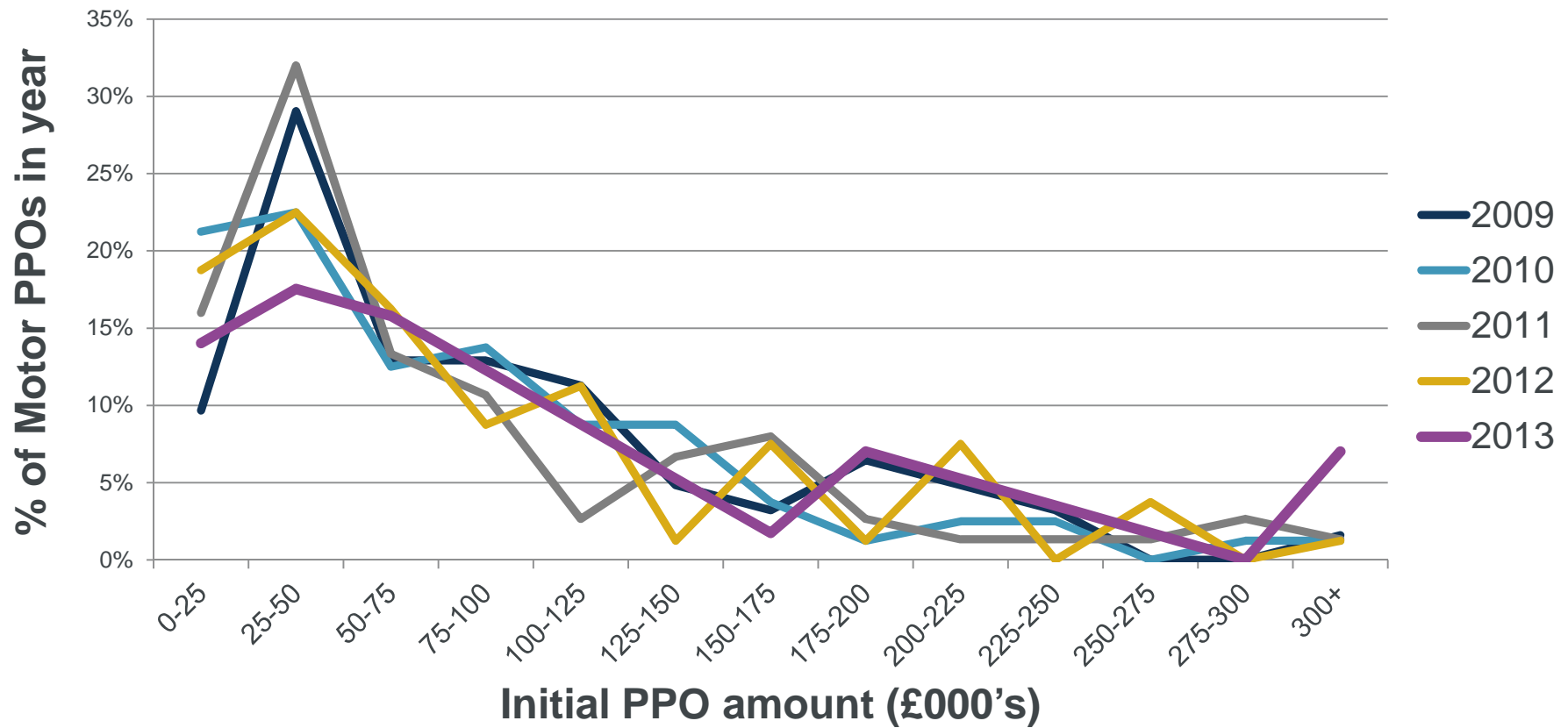
Inflationary pressures – Motor

Distribution of Lump Sums



Inflationary pressures – Motor

Distribution of Initial PPO Amounts



How do PPOs differ by class or cover?



Motor vs Liability

	Lump sum amount	Annual PPO payment	Age at settlement	Future life expectancy at settlement	Sample size
Motor	1,738,189	86,926	35.4	43.6	386
Liability	1,281,213	75,601	46.3	29.0	45

- Motor PPOs cost more and are paid for longer

Private Motor vs Commercial Motor

	Lump sum amount	Annual PPO payment	Age at settlement	Future life expectancy at settlement	Sample size
Motor	1,738,189	86,926	35.4	43.6	386
Private	1,734,747	84,442	34.5	44.3	290
Commercial	1,748,693	94,429	38.2	41.2	96

- Private Motor PPOs have lower annual payment but are paid for longer

Spinal vs Brain Injury

	Lump sum amount	Annual PPO payment	Age at settlement	Future life expectancy at settlement	Sample size
Spinal	2,219,546	115,550	40.0	33.4	101
Brain	1,541,907	78,676	35.1	45.4	299

- Spinal injury PPOs have higher lump sums and annual payments
 - But they are not paid for as long



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What insurers are doing now

2014 qualitative survey of insurers

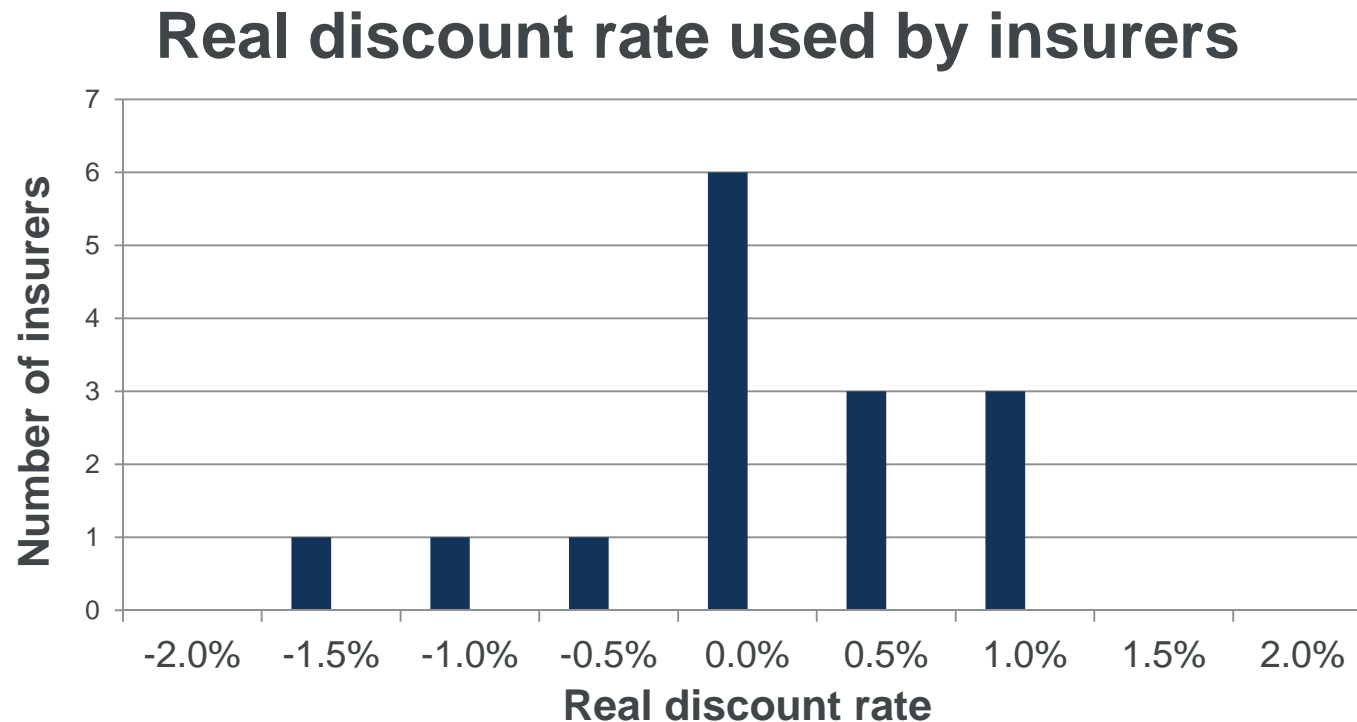
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Insurer assumptions – pricing

- How did insurers allow for PPOs in their pricing?
- Did higher or lower than half have an explicit PPO loading?
 - Half had explicit PPO loading
 - Remainder include implicitly within large loss loading
- Some acknowledged possibility of applying across risks in a non-uniform manner

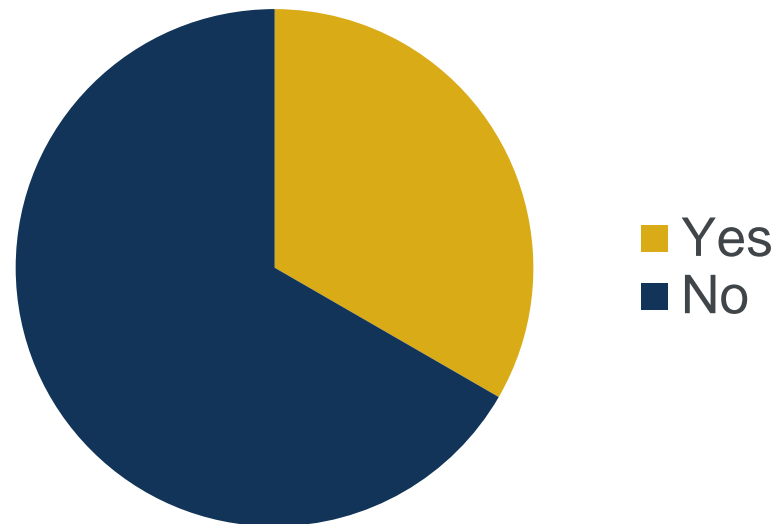
Reserving assumptions – real discount rate



- Most set investment discount rate assumption and ASHE inflation assumptions explicitly
 - But check the implied net position of the real discount rate is appropriate

Insurer assumptions – investments

- We asked insurers if their investment strategy changed as a result of PPOs?
- Of the insurers polled most said no.



- More longer term assets to better match duration
- Purchase assets to back PPOs and held separately

Insurer assumptions – matching adjustment

- Have you considered the use of the matching adjustment?

“Not material yet”

“Submitted to the PRA”

“Considered, but...”

“No”



“Demonstration of qualification lots of work”

“Mismatch risk too large to meet requirements”

“Wait and see”

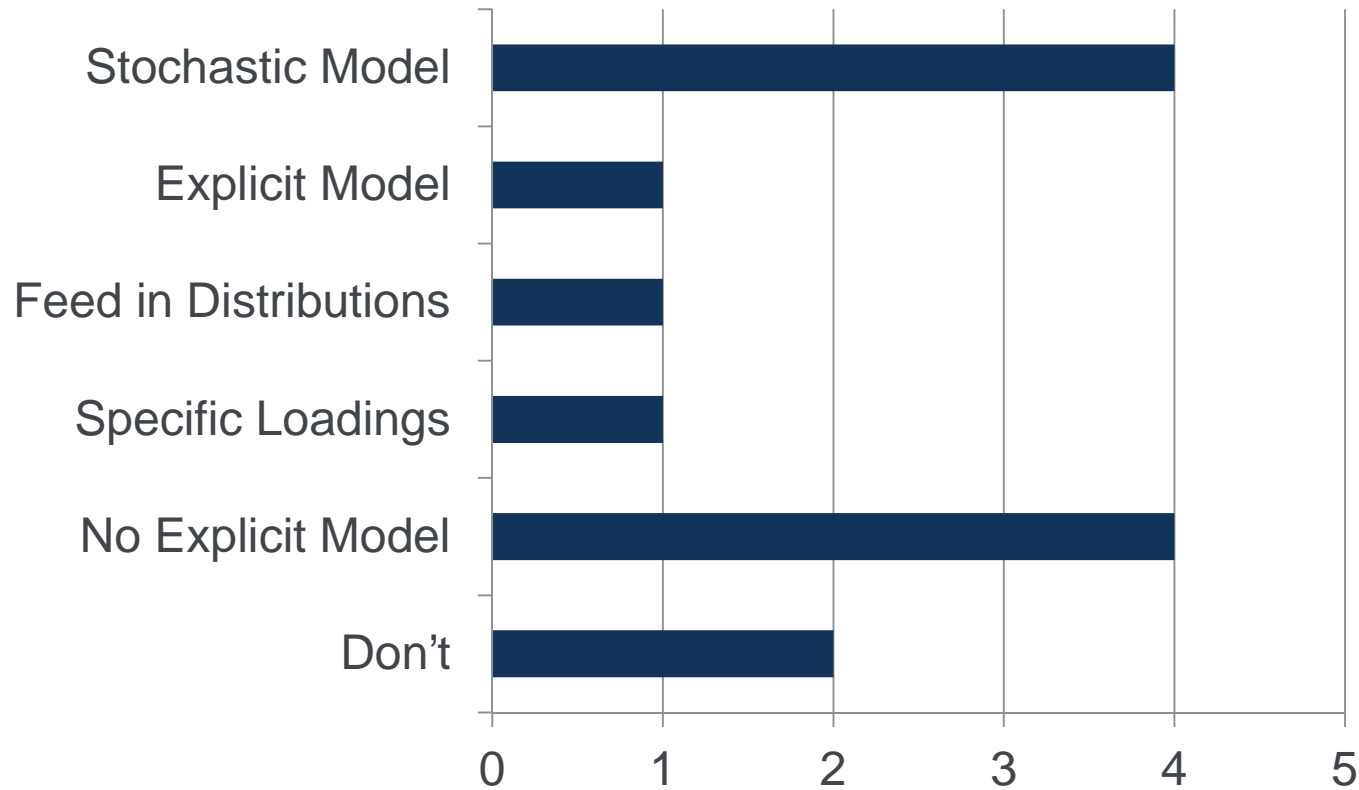
“Too restrictive on investment freedom”

Reserving assumptions – mortality

- No one uses stochastic elements for reserving settled claims
 - 8 Probabilistic
 - 5 Annuity-certain
- Most factor in medical expert opinion to set life expectancy
 - Longevity improvements?
- All use ONS tables, either Ogden 7 or underlying tables series
 - 6 Aging adjustment 
 - 2 Multiplicative scaling adjustment 

Insurer assumptions – capital modelling

- How do you allow for PPOs in your capital models





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Looking to the future

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2014 Workstreams

Mortality – UK

Mortality – Australian

Reinsurance

Market Solution

Bodily injury almanac

PPO Information Paper

Industry Survey

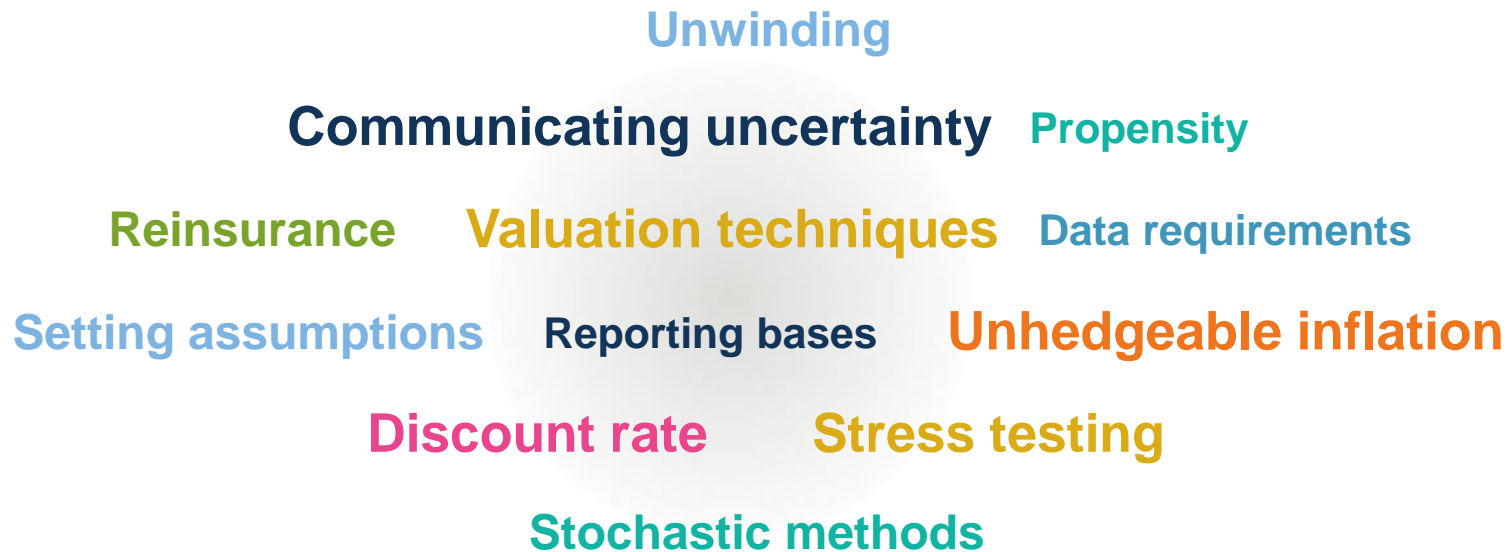
Bodily Injury Classification

New Working Party Injury Categorisation

- Two dimensional injury classification system identified with claims professionals earlier this year
 - Brain, Spinal, Amputation and other injury codes
 - (B1-6, S1-S5, A1-A4 and O1)
 - Care codes
 - (C1-C8)
- We encourage their use to help future generations assess PPO liabilities and investigate impaired life mortality
- Get involved: framework and definitions found here
 - www.actuaries.org.co.uk/practice-areas/pages/ppos

Information Paper – on its way

- A workstream in the Working Party is the production of a non-prescriptive paper giving information on key considerations for PPO valuation
- Look out for the forthcoming paper planned early 2015





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Conclusions



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Conclusions

- **PPO propensity appears to be reducing, but uncertain**
 - Reducing propensity still creates an increasing problem
 - **PPO sizes have increased and still differ greatly by class/cover**
 - Potentially driven by having fewer small PPOs
 - **Still diverse approach to pricing, reserving and capital modelling**
 - **Minority consider PPOs in setting their investment strategy**
 - Matching adjustment not considered by many companies
 - **Bodily Injury classifications and information paper to come**
-



Questions



Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenters.



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Questions

Emma.Potter@towerswatson.com

Keith.S.Brown@axa-insurance.co.uk



“ True stability results when presumed order and presumed disorder are balanced. A truly stable system expects the unexpected, is prepared to be disrupted, waits to be transformed. ”

Tom Robbins